wherein one of the first and second predefined lengths is adjusted to achieve the desired level of sub-transient reactance.

83. The method of claim 82 further comprising rigidly affixing the asynchronous field filtering shield to the rotor assembly.

84. The method of claim 82 wherein the at least one stator coil assembly includes a center section and a pair of end-turn sections positioned at distal ends of the center section, and positioning an asynchronous field filtering shield includes:

positioning the asynchronous field filtering shield between the center section of the at least one stator coil assembly and the rotor assembly; and

extending the end-turn sections of the at least one stator coil assembly beyond the asynchronous field filtering shield.

85. A method of maintaining a desired level of sub-transient reactance comprising:

specifying a desired level of sub-transient reactance;

producing a stator assembly including at least one stator coil assembly having a first predefined length and including a center section and a pair of end-turn sections positioned at distal ends of the center section;

producing a rotor assembly configured to rotate within the stator assembly;

positioning an asynchronous field filtering shield, having a second predefined length which is less than said first predefined length, between the stator assembly and the rotor assembly; and

flaring the end-turn sections of the at least one stator coil assembly radially away from the asynchronous field filtering shield, thus creating an expanded gap between the end-turn sections and the asynchronous field filtering shield;

wherein one of the first and second predefined lengths is adjusted to achieve the desired level of sub-transient reactance.